THE GENESEE FARMER.

Vol. V. ROCHESTER, APRIL 25, 1835. No. 17.

Published by Luther Tucker.

TERMS.—The Farmer is published every Saturday, making an annual volume of 416 pages, to which is added a Title-page and Index, at the low price of $2,50, or $2,00 if payment is made at the time of subscribing.

☞All subscribers must commence with the volume, Jan. 1, or with the half volume, July 1. No subscription taken for less than six months.

THE GENESEE FARMER.

SATURDAY, APRIL 25, 1835.

On the Uses of the Roller.

It is not every farmer that rolls his wheat in the spring of the year—indeed we think that many are unacquainted with the operation; and yet if it were made a standing rule, to perform it as soon as the ground is free from frost and dry enough to let the roller pass without clogging, we believe the *increase* of the crop would pay for all the labor many times over. Let us look at the nature of the thing. Clayey lands or stiff loams produce the greatest crops of wheat, especially if such have been originally calcareous; and one reason is, that this soil *shuts closer round the stems* of the wheat than any other. If that kind of land cracks in dry weather, the first shower causes it to swell, and shut up every crevice. Some of our loams, however, are so loosened up by the frost that soon after they thaw, the foot may be readily worked under the surface. This condition is unfavorable to wheat. In showery weather, the soil is inundated in consequence of the looseness of its parts which too freely admit the rain; and if we contrast this state of things with clayey land, we shall discover that something ought to be done to counteract this defect of the soil. Now rolling early in the spring is the remedy; and though it is getting late for the operation this season in many places, yet on other fields it might still be useful.

We may consider the use of rolling wheat in another point of view. The surface of loamy land in the spring, often abounds with small projections and depressions which have resulted from the heaving of the frost. The roots of the wheat are consequently exposed, and too much water is retained from heavy showers. The roller is also a remedy for these evils.

There is a practice among many farmers which ought to be noticed under this head. We allude to sowing clover seed on wheat without either rolling or harrowing it in; and when the season proves unfavorable, a large portion of the seed is wasted. "It did not take well;" and many a farmer has consoled himself in this way for the loss and disappointment of a crop. If he should sow his wheat without intending to cover it, his neighbors would pronounce him insane. Now the truth is, because clover seed will often *take*, we have got into the habit of trusting too much to the weather; but our duty as good farmers is to make it *take* by covering it with the soil, so that when the young plant puts forth its root, it may not be scorched or dried up by the first hot sun.

Our principal object at this time, however, is to call the attention of farmers to the importance of the roller on sward land newly turned over by the plough. Some years ago, when the obstruction of many stumps remained in our fields, an even, regular inversion of the sod, was hard to achieve; and some cultivators after rooting it up with the old fashioned *bull-plough*, put on a heavy drag, and *tore it to pieces* as much as possible. It was again ploughed for the purpose of loosening up a part of the sods that had become settled down too firmly to be disturbed by the drag. It also frequently happened that *balks* would be left in the first ploughing, partially covered by the furrow slice, and on these parts the drag would prove inefficient. A second ploughing and a second dragging was therefore indispensably necessary. If the season proved dry, this method answered well, though it was a very laborious one; but if it happened to be wet, this way of raising Indian corn was a hard concern, and we believe it is now entirely laid aside in this quarter.

When grass land is intended for this purpose, it is now generally ploughed with an even furrow, and but once. Many farmers seem not to be aware, however, of the benefit of rolling before the harrow is put on. This operation settles the sod firmly on the bottom of the furrow; and there it will remain undisturbed while the harrow is pulverizing the soil. A light harrow with many teeth is altogether preferable to one with large teeth, which never ought to be used on such occasions, as it is liable to tear up the sod, and more especially if the sod has not been rolled Let him who has not a roller, buy one.

Diffusion of Lime through Rocks AND SOILS.

In our article ON ACID SOILS, we extended the term *calcareous* to carbonate of magnesia; but this was an oversight, occasioned by the hurry of the moment, and it ought to be corrected. The carbonates of lime and of magnesia however, are strictly *neutral;* and only *seem* to be possessed of alkaline properties from the facility with which they yield to the stronger acids.

We have looked into several books of established reputation which treat of the analysis of soils, but have found no process for detecting lime when in combination with the vegetable acids; and this omission is probably the cause why some writers of considerable note, have pronounced soils that contain no carbonate of lime, or gypsum, to be also destitute of lime in any form. On this false position, an argument has been raised to prove that domestic animals, and more especially poultry, have the faculty of *generating lime.* The suggestion, that *calcium* (the base of lime) was a metal—a simple substance—and consequently not capable of bei g generated by combinations of other matter,—was of no avail with these *philosophers.* There was an egg with a hard shell; the shell was "lime;" but there was no lime on the farm where the hen resided, (so it was said,) and therefore she must have *made* it!

The "folly of the wise" is a grave subject; and we pass on to consider the general diffusion of lime. The opinion that soils have been derived from disintegrated rocks, appears to be well founded. It is equally so, that all rocks containing animal remains or impressions, have been mainly derived from *primitive* formations; and it then follows as a consequence that if lime is generally a constituent of primitive rocks, it must also be a constituent of common soils.

It has been estimated that one eighth* of the crust of the globe is calcareous matter; but turning from the immense masses that underlay the plains, or rise into mountains, we shall now attend to its diffusion through other rocks.

Beginning with GRANITE, we find that *feldspar* is the most abundant† of its constituent parts; and though somewhat variable in its composition, it has been found to contain as much as *seven* per cent. of lime. GNEISS is only stratified granite.

In MICA SLATE, the next incumbent rock, carbonate of lime is sometimes disseminated, and even beds of gypsum occur.†

Following the arrangement of Cleaveland, the next rock in order is ARGILLITE. He says, lime usually occurs; and in one specimen Kirwan found four per cent.

QUARTZ ROCK sometimes contains feldspar, and consequently a proportion of lime; but it is also found alternating with gneiss, mica slate, and argillite.

DIALLAGE ROCK is essentially composed of *diallage* and feldspar. From a specimen of the former mineral, *thirteen* per cent. of lime was obtained

HORNBLENDE has been found to contain from *eight* to *eleven* per cent. of lime. Most of the rocks which are associated with it, also contain lime. GREENSTONE is essentially composed of hornblende and feldspar.

HYPERSTHENE ROCK, the 10th in number of Cleaveland's arrangement, contains a small proportion of lime; but AUGITE ROCK which is an aggregate of augite and feldspar, is richer in that fertilizing material. In one specimen of *augite*, Klaproth found *fourteen* per cent. of lime and in another *twenty-four* per cent.

PORPHYRY usually contains a proportion of lime, either in its basis or in its embedded minerals. In SIENITE, feldspar is the most abundant ingredient

If then lime is generally a constituent of the primitive rocks, we have much reason to conclude that it is not less abundant in the later formations; and consequently in the soils of the present period. Our opinion is,—and it is founded on the important discoveries of the author of the "Essay on Calcareous Manures,"—that combinations of lime with the vegetable acids, have hitherto eluded the researches of chemists; and chiefly because they have taken it for granted that no such combinations exist. In a similar way *lithia* remained long undetected. In the earlier analyses of spodumene, Vauquelin found eight per cent. of potash and lime, (as he supposed,) but Arfvedson found neither, though nearly that proportion of lithia. We believe that the composition of soils, has not been sufficiently examined.

* Philips. † Cleaveland.

We doubt that any natural soil is destitute of lime in some of its combinations; and would refer to the chemistry of Nature which exhibits it in the bones of all domestic animals as well as in the eggs of poultry. There is no defect in her apparatus, no mistake in her tests and re agents. The quantity of lime in many cases, however, appears to be quite insufficient to neutralize the acids which remain as a *poison* in the soil. Of the ratio of increase of these acids, we know but little at present; though it probably is very small in soils highly charged originally with calcareous matter. In other soils, acids appear to accumulate. We have heretofore mentioned an experiment* in Virginia, proving the decrease of carbonate of lime. In the south-eastern parts of Pennsylvania, plaster gradually loses its efficacy, unless the soil be *limed;* and some farmers make it a rule to perform that operation on their fields as often as once in eight or nine years. The *hot* nature of their lime prevents them from applying it very liberally. Forty or fifty bushels to the acre is about an everage dose. They would doubtless find it profitable however, to apply it as often as the land would bear it; and then, in future years, we might expect that their fields, like soils naturally calcareous, would cease in a great measure to nourish acid plants.

Vernal Flowers.

(*In a letter of the 15th instant*)

The Persian Iris (*I. persica*) is without doubt one of the most delightful ornaments of the spring. The extreme delicacy of its tints, which run thro' so many shades of color, is not less remarkable than the delicacy of its fragrance; and in addition to these fine qualities, is its earliness, being decidedly in advance of all its gaudy congeners of which I have any knowledge, and contemporaneous with most of the Crocus tribe. It is also well suited with the limestone soil of our district. This is a consideration of more account than many florists may be aware of, for some precious plants of other regions, preserve but little of their beauty amid the peculiarities of our soil and climate. The Persian Iris ought to be in every garden.

More modest, but scarcely less attractive, is the Siberian Squill (*Scilla sibirica*) with bright blue flowers in racemes. It is a lovely plant; and the European Erythronium (*E. dens canis*) may be associated, and partake of the praise, though it differs greatly in appearance. All our American species of Erythronium are much later in coming into bloom.

Until yesterday morning, the frosts of this spring had not been severe. The Crown Imperial stood erect under our lowest temperatures; and the light red flowers of the Mezereon, diffused their fragrance round the garden. We have now experienced a great change indeed, but such is the constitution of our seasons and climate.

The injunction of "taste not" applies well to the Mezereon, for notwithstanding its beauty and perfume,—all the qualities which concern a florist,—the bark is extremely acrid and the berries very poisonous. Qualities so opposite are not without example however, in other plants. The Cassava of the West Indies, which furnishes so large a portion of its bread, is associated in the same root with a most deadly poison.

The Trumpet Major Narcissus is the earliest of the genus that I have in my possession, and it has been in bloom for some days. It is a very fine flower. The color is a light yellow; and the large nectary from which it derives its popular name, is beautifully dilated, and fringed or indented on the rim. Why is not this favorite of the spring more common in gardens?

Our native Hepatica (*H. triloba*) varying thro' so many shades of color, now makes a fine display. When planted in the shade,—where Nature always plants it,—it comes later into bloom, and is prevented in cold nights from radiating so much of its heat to the open sky.

Spiræa spicata still keeps its vegetation in advance of every other shrub. In frosty weather I am afraid to leave it unprotected.

* See Genesee Farmer, vol. 4, p. 395.

"The Silk Culturist."

An association, called the "*Hartford County Silk Society,*" has been formed in Hartford, (Conn.) whose object is "to introduce and extend throughout the county, the knowledge and practice of cultivating and raising mulberry trees, of feeding and managing silk worms, and reeling silk from cocoons, in the most approved manner." A constitution was adopted, and the following officers chosen on the 5th of March last:

ELIZUR GOODRICH, Jr., *President.*
WALTER MITCHELL, *Vice President.*
F. G. COMSTOCK, *Secretary.*
E. W. BULL, *Treasurer.*

Ward Woodbridge, David Whittelsey, S. W. Brown, J. L. Comstock, E. W. Bull, Daniel St. John, Jonathan Butler, Allen Clemons, William A. Ives, F. A. Drake, Christopher Colt, *Executive Committee.*

The Executive Committee, in furtherance of the objects of the Society, have commenced the publication of a monthly paper, called *The Silk Culturist*, the first number of which we have received. It affords abundant evidence of the ability and judgment of the committee for the performance of their duties; and while it will excite public attention to the advantages to be derived from the general introduction of the culture of Silk into our country, it will also afford the information necessary to enable such as are disposed to enter into it, to proceed understandingly. It is handsomely printed on a sheet about the size of this paper, at 50 cents a year.

"The attention of the Society has been drawn to the subject," say the Editors, "by the peculiar adaptation of our soil and climate to the cultivation of silk, and its astonishing consumption in this and all other countries in the world. The silk worm is a native of China, and there it is produced, grows and spends its industrious life in the open air. 'Like the common caterpiller, it nestles upon trees, and winds its beautiful cocoons.' Europe is also a silk country, particularly Italy and the south of France; but notwithstanding the salubrity of its atmosphere and the mildness of its climate, the egg is hatched and the worm is reared in *hot houses*, attended with much trouble and expense. The mildness and evenness of the temperature in the U. States, during the silk season, like those of China, render artificial heat unnecessary. Hence it is manifest that this country is destined to be one of the greatest silk growing districts on the globe."

We make the following extracts from the first number of the "*Silk Culturist:*"

☞ The following is the answer to a letter addressed to the President of the Hartford Silk Society, by A. Goodell, Esq., P. M., Perinton, Monroe county, N. Y., propounding certain inquiries touching the most judicious method of cultivating the mulberry tree. We give it a place in our first number, not only for the benefit of Mr. Goodell, but such other gentlemen as are desirous of information on the subject. Mr. Goodrich is extensively known as a scientific and practical cultivator of the mulberry, and his experience on the subject has enabled him to impart much useful instruction to beginners in this important branch of rural economy.—EDS. CUL.

HARTFORD, *March 22d*, 1835.

A. Goodell, Esq.—I have received your letter of March 13th, 1835—I advise you to set the rows of mulberry trees at the distance of *eight feet;* this will allow sufficient space to plough between the rows with a yoke of oxen, or to pass between them with a one-horse wagon, when the trees are considerably grown.

I would transplant the trees when they are *one* or *two* years old, (I should prefer those which are *one* year old,) and set them in the rows originally, at the distance of two feet. They will grow for two or three years within two feet of each other, as well as at a greater distance. You will then have more than 2700 mulberry trees on an acre. If your trees are one year old, or seedlings, you may, if you please, place them at the distance of one foot from another in the rows.

It is important that the young plants should be *hoed* and *cultivated* for a few years, with as much care as is usually bestowed on carrots or onions; and in order to do this with as little expense as possible, potatoes, beans or ruta baga, may be planted between the rows, and when the potatoes are hoed, all the weeds around the mulberry trees must be carefully destroyed.

When the trees are three or four years old, and have begun to spread, and fill the ground, I would *thin* them out by digging up and transplanting *every other tree*. Experience will enable you to decide at what time this is proper to be done.

I ought to have added above, that potatoes should be between the rows *well* manured, so that the whole ground may be rich like a garden.

I observed the last year, that the young mulberry trees grew as well where potatoes were planted between the rows, as where they were omitted, and the trees cultivated in the same manner without potatoes.

I would begin to *prune* the young trees the *first* year, and continue it every year, observing to cut off all *sprouts* which grow near the ground; no leaves ought to be suffered to grow nearer than two or three feet to the ground. The earlier you begin to prune, the easier it will be to form good trees, and the more rapidly they will grow.

The second year, I would begin to make silk of the *twigs* which are trimmed off. If the trees have been properly cultivated from the beginning, I think you may make silk enough the second year, to pay all the expense of making the silk, and of cultivating the trees that year. The principal object, however, ought to be, not to make silk the second year, but to cultivate the trees in the most judicious manner.

I would, therefore, advise that for the two or three first years, the trees should be trimmed, and the leaves gathered, only by persons who know how to trim trees properly.

When the trees are four or five years old, at which time, they will be six or eight feet high, I propose to gather leaves for the worms, by cutting off twigs or small branches, which may be done by a person standing on the ground, still observing to trim the trees in such a manner as will best promote their growth. At Mansfield, in this State, the leaves have usually been stripped with the hand from the branches, and the person who gathers them, is obliged to climb trees which are thirty or forty feet high. I propose to save this labor in a great measure, by trimming and heading down the trees from year to year, so

that they shall not grow more than six or eight feet high—and in such a manner that the leaves may always be gathered by a person standing on the ground. In this manner, mulberry leaves are gathered in Persia and in the vicinity of Constantinople.

The leaves, or rather branches, are to be conveyed to the silk house or cocoonery, in one horse wagons, and you will now see the propriety of leaving the rows sufficiently far apart for wagons to pass between them. I propose also to gather the leaves, or branches, in large baskets, of a proper shape, made for the purpose, and adapted to the wagons. I suppose that one man with a wagon, will carry these baskets of leaves to the cocoonery as fast as a number can fill them.

I found the last year, that leaves which grew near the ground, were covered with sand or dirt, thrown upon them during showers of rain; and it was necessary to clean them thoroughly before they were given to the worms. The labor of doing this was about equal to that of gathering the leaves. This suggested the propriety of trimming up the young plant from the beginning, so that no leaves should grow near the ground.

I omitted to mention, that the potatoes which may be grown the first year, between rows of mulberry seedlings, will, as I think, pay for setting out and cultivating the plants that year.—When the mulberry trees have grown to a considerable size and the roots have filled the ground, it may perhaps be advisable to discontinue planting potatoes between the rows, as the roots of the trees would be impaired by ploughing the land. I refer you to the "Silk Culturist," published in Hartford, for further information on this subject. The views expressed above have been submitted to nurserymen and others, who have cultivated the mulberry tree, and also to farmers who are in the habit of raising silk at Mansfield, and are in general approved by them.

Yours, respectfully,

ELIZUR GOODRICH, Jr.

The following facts have been communicated to the Executive Committee by Mr. Harvey Clark, a respectable inhabitant of Mansfield, in this State:

Mr. Clark is the proprietor of two acres of land in Mansfield, of which about half an acre is covered with mulberry trees. He has made annually from these trees about 35 lbs. of raw silk, which for the last year or two has been reeled in the improved method. The leaves have usually been gathered and the worms fed for the first three weeks by Mrs. Clark and a young woman who lives in the family. After the first three weeks, Mr. Clark also devotes himself entirely to the business. The silk has been reeled exclusively by Mrs. Clark and the young woman above alluded to, at the rate of about one pound and a half a day. During the whole silk season they have also had the care of a family of eight small children. Mr. Clark has sold his raw silk this year at four dollars per pound, and has also received a premium of 50 cts. per lb. from the State Treasury. We have reason to believe that the same silk might have been sold at Lyons, or to silk merchants at New-York, for five dollars per pound. Mr. Clark's mulberry trees are forty or fifty years old, and of a large size. They have been manured and cultivated with great care for the last fifteen years. Mr. Clark thinks that an acre of land covered with trees equal to those on his land will yield about 70 lbs. of silk a year. His silk house, or cocoonery, is fifty feet long and sixteen feet wide, and one story or about eight or ten feet high, not lathed or plastered, and may have cost $150 or $200. He has never had occasion to warm his cocoonery, as is practiced in Italy and France; indeed, this has never been done by any of the silk growers at Mansfield.—Mr. Clark informs us, that at the Silk Factory in Mansfield, reels are now propelled by water power. A very small amount of power answers the purpose. Improved reels are now made by several mechanics who live either at Mansfield or in the vicinity. Mr. Clark states, that his mulberry trees have been greatly improved by careful cultivation. We have shown Mr. Clark a statement in the last number of the Cultivator, of the profits made by Mr. Carrier, of France, from an acre of mulberry trees. He thinks that the statement is probably not exaggerated, and that an acre of well cultivated mulberry trees at Mansfield would yield a larger amount of silk.—*Silk Culturist.*

Demand for Cocoons.

Judging from appearances, the demand for cocoons and reeled silk, the coming season, will exceed the supply in a thousand fold. The silk manufactories in Dedham, Mansfield, and this city, are depending principally upon the new crop for the raw material. The last year's crop is already exhausted, and we understand that scarce a bale of foreign silk can be found in the commercial cities. Those, therefore, who raise a crop this season may depend upon their being sought for by the manufacturers, and at a very liberal price. We should not be surprised if they commanded $4,00 a bushel. Such persons, therefore, as have foliage, will do well to make cocoons, if they are not prepared for reeling.—*Ib.*

Quality of American Silk.

From repeated experiments, Monsieur D'Homergue is decidedly of opinion that American silk is vastly superior to European. The weight of the cocoons are nearly fifty per cent. heavier, and possess a uniformity which is not to be found in Europe. He found that eight cocoons, with their chrysalis, not selected, produced two ounces of raw silk, whereas one pound of ordinary European cocoons would be required for the same quantity. He also selected seventy-five cocoons, without chrysalis, weighing together 450 grains, which yielded 419 grains of raw silk, superior to that of France or Italy. Twelve bad cocoons also produced fifty grains of beautiful silk.

"These results," he says, "are truly surprising, as they show a superiority in the silk produced by the American worm, (at least in Pennsylvania,) over that of any other country that he has seen, which he was far from expecting when he began his experiments, and which he believes no one had suspected or imagined." He also adds, "they promise an immense source of riches to the United States."

We might recite the authority of other culturists and manufacturers, but they all concur in the opinion that American silk is altogether superior to that produced in any other country.—*Ib.*

Bounty from the State.

Silk culturists in Connecticut should remember that they are entitled to a bounty from the State of one dollar on every hundred mulberry trees, which they shall set out "at such distances from each other as will best favor their full growth and the collection of their leaves," and cultivate until they are five years old. The statute giving this bounty, as also a bounty of fifty cents on each pound of silk reeled "in the present improved method" was passed in 1832, and several individuals have already taken the benefit of its provisions. A subsequent statute passed in 1834 has extended the bounty to the Chinese mulberry, *Morus multicaulis*, and also to silk reeled "on any reel in a proper manner to be manufactured into the various silk fabrics."

These bounties ought to encourage farmers to engage in the business, as the bounty on the trees will in part pay for their cultivation, and the bounty on the silk will nearly, if not quite, pay the expense of reeling.—*Ib.*

Ornamental Trees.

Every farmer of taste and judgment borders his front yard, garden and avenues, with ornamental shade trees; and it is of importance that he select such as combine beauty with usefulness. Forty years ago the Lombardy poplar, was introduced into this country, and it was, for a time, supposed to be indispensable to the beauty and pleasantness of a farm house. In some places, streets for miles in length were lined with this worse than useless tree. Their growth was rapid, and their form handsome; but it was soon discovered that they were not only worthless for timber or fuel, but infested with an insect of the most poisonous nature. These discoveries soon caused their destruction, and now there are but comparatively few left standing. Had farmers set out the white mulberry, instead of the poplar, they would have, by this time, added to the value of their farms from $5 to $10 a piece, without taking into the account the value of the silk that might have been made from them. But experience is said to be the best schoolmaster, and it is to be hoped that farmers will hereafter plant their grounds with trees which are both ornamental and useful. Such are several species of the mulberry, and especially the Chinese or Morus multicaulis.—*Ib.*

Cultivation of Fruit.

Say a choice grape vine will cost two or three shillings—a plum four—a pear three, and a peach two, and currants and gooseberries enough to make up, in the whole, two dollars. We give nursery prices for the choicest fruit. In a few years, the vine will yield him a bushel or two of grapes, and the trees a bushel or more of fruit each, which will be worth in market, or in his family, at least ten dollars, with a fair prospect of rapid increase in the product. Having formed the nucleus, the boys, with a little practice, will soon acquire the art, which every farmer ought to possess, of increasing the quantity and variety, by budding, grafting, layering, &c. And the labor, that will be required in doing this, need abstract nothing from the profits of the farm—the hours that are misspent, or wasted in idleness, will suffice for the task. Every plant thus produced, will become an object of interest. In 1832, the fruit from two pear trees sold for $45, at the fair market price.

April is the general season for grafting, in this latitude, though it is sometimes performed in March, and sometimes omitted till May. The grafts should, however, be cut before the buds begin to swell. The scions are most likely to live if inserted when the sap is circulating freely, for then the wounds soonest heal.

The object to be aimed at in the process of grafting, is to bring the inner bark and the sap-wood of the stalk and scion, in nice contact, so that the ascending sap of the stalk will pass freely into the sap-wood of the scion, and the descending sap of the scion, which has been elaborated and prepared in the leaves, and which descends through the inner bark, to pass freely into the inner bark of the stalk. This elaborated sap soon hardens into wood, and covers and heals the wound.—*Cultivator.*

American Silver.

Tea sets, spoons, forks, vegetable and game plates, and many other articles of domestic use, usually made of real silver, are now manufactured in New-York of what is called American silver, in contradistinction to German silver. The alloy consists essentially of copper, zinc, and nickel, to the latter of which it owes its color, hardiness, and some other essential properties. Manufactures of this kind can of course be afforded much cheaper than those of genuine silver. Peddlars who among other notions vend "genuine silver spoons" to our country matrons, will speculate on these to good advantage. The Professor of Chemistry at West Point, states that vessls made of this composition, may be used in cookery without injury.—*Greenfield Gaz.*

Col. John Gilmore, who received the premium on Bees from the Kennebec Agricultural Society last fall, thinks that much is lost by not keeping the bees at work. When, after the swarming season is over, bees hang out on the hive, it is because they have not work enough. The hive ought to be so constructed that more room can be given them in such cases.—*Vt. Chronicle.*

COMMUNICATIONS.

South Down Sheep.

BY ONONDAGA.

Mr. Tucker—I observed in your paper early in last winter, a notice of some fine South Down sheep that were driven through Albany, the property of F. Rotch, Esq. of Butternuts, imported from the flock of John Ellman, Esq. of Glynde, England. As this valuable breed of sheep are comparatively strangers in America, I should be pleased to hear some further account of them, and the characteristics of the breed, from Mr. Rotch himself, as he is an eminent breeder, and thoroughly understands the subject.

I have lately understood that Mr. Ellman, who is celebrated for his valuable sheep in England, has sent some of his "prize sheep" to this country. Is it so? And if it be, can any correspondent of the Genesee Farmer give correct information on the subject? The improvement of our sheep husbandry is an important affair, and any intelligence which may lead to that result is valuable to every wool grower in the country.

Yours, very truly, Onondaga.

Repair of Roads.

BY ONTARIO.

Much has been written respecting the state of our roads, and the manner of forming and repairing them. Observation and experience has convinced me, that most of the labor bestowed on the roads is worse than thrown away, and my object in writing these lines is, if possible, to induce the overseers of highways to adopt a plan different from the one generally pursued.

The soil from the road side should be drawn to the compost heap, but never scraped to the traveling path. Where land adjoining the road descends toward it, it is important to make a ditch of sufficient capacity to prevent the water flowing on the traveling path. The water should be conducted to the lowest ground, and there passed under the road by a culvert, which should be made of stone if practicable.

Roads that have not been graveled, and have become sufficiently dry in the spring to work, may be greatly benefited by passing over them a large straight iron shod scraper, drawn by oxen, which fills the ruts and leaves the surface smooth. When this is accomplished, the ditches and culverts cleared out, and the bridges repaired, the remainder of the road tax should be expended in drawing gravel to the road, if this material can be had within a distance of two miles. Beginning at one end of the district, and progressing till all the tax is paid, covering the traveling path to the depth of six inches. The next year begin where this year's work ended, and so progress until the whole district shall be well graveled. Where this system has been pursued, it has been found that the roads afterwards require very little repair.

This may appear a formidable undertaking to some, but there is no one case in which the old adage is more true than in road making, that "a thing well done is twice done." In some parts of our country it is difficult to find good gravel, but it will well pay to draw it a considerable distance, being far superior to any other material.

The state of roads strongly indicates the character of the inhabitants. Where travelers pass over good roads, and those bordered by handsome shade trees; and more especially, as is generally the case, if they find them in company with well fenced and well cultivated farms, they form an opinion highly favorable of the industry or intelligence of the owners.

If none of the considerations I have named should induce the adoption of my plan, perhaps the pleadings of interest may. I therefore assert, as the result of some experience, that such roads are the cheapest in the end; and where found, farms uniformly command at least five dollars more per acre, than those of equal quality where the old road system compels people to travel in *mortar*. Ontario.

Skinless Oats.

BY R. R.

Mr. Editor—In your 13th number, you mention "Skinless Oats" for sale, price $1 per quart, (at Baltimore, I think.)

This price is very fair; as it is fair to exepect that those who give a good price for any thing will be the most likely to take care of it; and care will soon increase the quantity of the article, and, consequently, diminish the price of it.

The following statement of what occurred here, is literally correct:

November 14, 1834.

Scene, the Library—R. at his table. Enter T. B.

R. So, T., how are you?

T. Well—how art thou? Hast thou heard of skinless oats?

R. Yes, and would be glad to get some of them.

T. So would I. I wrote to my friend B. in New-York city; but he could not find any at the seed stores there.

R. And I wrote to my friend Dr. M. of Philadelphia on the same subject; but there were none to be had in that city. The Doctor, who is always delighted when he can give pleasure to any one, will write to his correspondent Loudon, of London, the indefatigable editor of those Encyclopedias of Agriculture, Gardening, Plants, Cottage Architecture, &c.—there, on that shelf—and if he can get any, he will send some to me to commence with.

T. I have brought in my pocket the Cultivator, published by Jesse Buel, in Albany, to let thee see what he says about the skinless oats; and if thou would write to friend Buel, perhaps he could get some for us.

R. Thank you, Thomas, I have seen the article you speak of. I don't know Mr. Buel, personally, but I will write to him. I believe him to be a very worthy man. In truth, I never knew a person that was fond of farming and gardening that was not a worthy man. I don't think that he can get any of the oats in this country; but if he can, what are you willing to give per bushel for them?

T. I would give five dollars.

R. I would be glad to get some at the same rate. I'll not forget to write. Good bye.

November 15, (*the next day.*)

R. as before. Enter A. B.

A. I have come to pay you ten dollars which I owe you, and I feel much obliged to you—[pays the money.] Did you ever hear of the Chinese oats—or Siberian oats, as I am told some persons call them?

R. No, not by that name. What are they like?

A. Why, all the chaff, or hull, comes off when they are threshed.

R. O, I suppose you mean the skinless oats. What do you know about them?

A. Why, I raised some.

R. Raised some! In the name of wonder, how came you to get any?

A. Why, three years ago, my brother-in-law was attending lectures in Philadelphia, and he had a young Scotchman for his room-mate. The Scotchman received a packet of seeds from his father, among which were fifty grains of these oats. He gave them to my brother-in-law, and on his return he gave them to me. I sowed them in the garden, where they grew very well, and I took a good deal of pains with them—separated the roots, and transplanted some. The next two years I sowed them in the field like any other oats; but I ought not to have sowed them so thickly, for as they have no husk, they go three times as far as the common ones in sowing. This is the third sowing—once in the garden, and twice in the field. I thought you would like them, and I have brought you some.

R. And what quantity have you?

A. About twelve bushels.

R. In three sowings from the fifty grains?

A. Yes. I would have had twice as much, but I sowed them too thick, and they lodged; and the fowls destroyed a great deal.

R. How much do you mean to keep for your own sowing?

A. Four bushels.

R. Do you intend to sell the rest?

A. Yes—eight bushels.

B. What do you mean to ask per bushel, for what you will sell?

A. Why, considering the trouble I had the first year, I think I ought to have a dollar a bushel.

R. More, man—you ought to have much more. I will give you much more.

A. No, that is enough to repay all the trouble I have had. I could not, in conscience, take more.

R. I offer you more.

A. No—I had rather not take more. That will repay all my trouble. I can't, in conscience, take more.

R. Upon my word, your conscience does you much credit! I wish to Heaven that all the politicians of our country had as tender ones! Here is your money for the eight bushels, since you won't take more. I will put one half away for my own sowing; T. B. shall have a bushel out of the other half, at the price your conscience has fixed; and the residue shall be given away, a tin cup full to each person who will promise to sow and take care of them; and thus they will be widely scattered; for, let me see—a tin cup contains a pint—a bushel sixty-four pints—three bushels (after T. B. has his bushel) will be a pint a piece for 192 persons. Thomas!—here, get a tin cup, put it in that barrel, and give the

full of it of those oats to every person you see who will sow them; and send to T. B. who was here yesterday, and inform him that there is a bushel of skinless oats here for him.

Well, really, it is very singular, that while I have been wondering in what part of the world I could procure a handful of these oats, which are said to have reached Europe from China only three or four years ago, this honest neighbor of mine—my blessing on all such consciences!—should have been sowing and raising them for these three years past! Honest A. and that tin cup will do a great deal of good—"how far a little candle throws its beams." R. R.

Susquehannah co. Pa.

Culture of the Potatoe.

BY A. G.

Mr. Editor—My motive in writing the present communication is to explain a system of culture practiced by Mr. Jessop in England, which possesses some important features deserving the attention of the agriculturist. Useful information on a subject so important as the cultivation of this valuable vegetable, cannot but be acceptable to every reader.

"Mr. J.'s practice is to plant the sets whole, two feet apart each way, and when the plants rise above the surface, he hoes and draws the earth up to the stem, molding entirely round each plant, by which means all have room to swell and bring their tubers to perfection."

Remarks on earthing up potatoes.—If we examine the potatoe stem or plant, when the tubers are beginning to form, we find that the potatoes are placed upon the runners issuing out from the plant or stem *above* the set. The functions of the set are to push out roots to gather food from the soil to nourish the plant and its foliage, and from the leaves the blood or fruit sap flows down to form the runners and new tubers; so the more you earth up the plant or stem, the more runners are formed, and consequently a greater quantity of tubers is produced.

Mr. Jessop adds, "I next pick off the blossoms, a practice which has been proved by Mr. Knight to add to the produce one ton per acre."

Remarks on picking off the blossoms.—The benefits arising from divesting the plants of their blossoms may be easily ascertained by a very superficial examination of the physiological structure of the potatoe, and the manner in which its progeny is produced. The fibrous roots of the plants (as explained above) are perfectly distinct organs from the runners which give existence and subsequently convey nutriment to the tuberous roots; but the same fluid or sap which gives existence to the new tubers, gives the same to the blossoms and seeds; hence when a plant of the potatoe is allowed to perfect its seeds, a diminution of the crop of tubers, or an increased expenditure of the riches of the soil must necessarily take place. Pinching off potatoe blossoms is a practice well worthy of imitation, as experience has proved that the crop is not only increased in quantity, but is also much better in quality. Mr. Jessop's practice is, therefore, guided by planting whole sets, by planting them wide apart, by drawing more mold to the stems than is generally done, and by picking off the blossoms,—principles in practice, which merit the attention of every farmer, in the cultivation of a crop so valuable to the community at large, but more particularly to agriculturists, to whom the potatoe is so highly beneficial in supplying their stock with succulent food during the rigors of winter. But independent of this, the many properties which this valuable root possesses, and the many uses to which it can be applied, render it certainly one of the most, if not the most valuable of all our vegetables. As these various uses have been enumerated by the Messrs. Payen & Chevalier of Paris, and as they no doubt will prove interesting to many readers, I shall now subjoin them. They are thirty-one in number, and are as follows:

"1, 2, 3. Its haulm, in a green state, is good food both for cattle and sheep; dried and burned the ashes afford potash, or will form artificial niter beds.

4. The tubers in a frozen state afford starch, and by distillation, spirits.

5. They may be made into bread with one third of flour.

6. Potatoes, young or old, may be eaten roasted, steamed, or boiled.

7. Soups of every kind may be made of them; they may be roasted, boiled, or eaten in salads.

8. With the flour of potatoes every description of pastry may be formed.

9. Converted into fecula, or starch, or cut into slices, and dried by steam, they may be preserved for any length of time.

10. Vermicelli, rice, and tapisca, articles which may be made of the flour or starch of any plant, may of course be formed from them.

11, 12, 13. They are mixed with gravy; they are made into paste and starch.

14. Mixed with stucco they form an improved plaster.

15. They nourish every description of domestic animals, and during winter are eaten by hares and rabbits.

16. Cut into slices, and thrown in a certain proportion into caldrons of boiling water, they prevent the sediment of water from adhering to the sides and bottoms of such vessels.

17. They form a wash or thin plaster for buildings, which may be colored by soot, ocher, or other colors.

18. Roasted to a brown state, and ground to powder, they make a very good coffee.

19. Crushed, they are employed for whitening linen and other cloths.

20. The water expressed from bruised potatoes is a rapid promoter of the germination of seeds.

21, 22. The fecula, or starch, with sulphuric acid, is converted into syrup, from which a species of sugar may be obtained, analagous to cassonade, (moist sugar.)

23. With soot and other mixtures this syrup makes an admirable blacking.

24. Crushed potatoes or other fecula, will afford spirit by distillation.

25, 26. The water contained in the tubers of young potatoes may be employed for dyeing grey, and the blossom furnishes a beautiful yellow.

27, 28. The water of potatoe blossoms, cleans cloth of cotton, wool, and silk, and assists in the manufacture of artificial soda.

29. A potatoe diet cures the scurvy.

30. The sediment of the fecula, mixed with the powder of charcoal, may be made into little billets, or bricks for building or burning.

31. The potatoe may be cultivated in caves and cellars, *which resource might have saved Missilonghi.*"

The latter remark is an erroneous inference, drawn by Messrs. Payen & Chevalier, as the young potatoes formed in cellars or other close apartments, are merely a remodification or transfer of the nutriment contained in the old potatoe, and as this transfer is always made at a great loss of nutriment, if the besieged at Missilonghi had enough of potatoes to plant their cellars, it would have been more profitable for them to have eaten them as they were. I have frequently, for the last fifteen years, planted from 12 to 20 bushels of potatoes in this manner, from September to the end of October, invariably at a loss of from 1000 to 1500 per cent., but this to an English Aristocrat was of no consequence, in his estimation, so that he could have the semblance of *new* potatoes at his table on *Christmas day.* Very respectfully, A. G.

Fertilizing Properties of Lime.

BY HOLKHAM.

"To doubt," says R. M. W. "is the *beginning* of wisdom;" and we have reason to fear that with him it will be the end as well as the beginning; but he seems to have forgotten a quotation from higher authority, "he that doubteth is damned,"—an unhappy conclusion of his argument, from which we hope his readers may be redeemed by the more valuable possession of "saving faith."

But we shall neither measure wit nor bandy sarcasms with any writer upon this interesting subject. Our aim is directed to nobler and more elevated purposes; and we therefore receive the calcareous soap, to which he has given our understanding an exclusive possession, with the hope that it may purify and cleanse it. We hope, however, to be able to defend ourselves and our opinions *when necessary*, and shall be careful not to talk largely about other men's intellectual attainments until we have accurately measured the capacity of our own minds.

The confusion of ideas which prevents an agricultural chemist from discovering the difference between containing caloric and evolving it, renders it exceedingly difficult to reason, more especially when authorities, to whom agriculturists are in the habit of appealing, are denounced as unworthy of credit, *if their works happen to be known*, or as no authority, if they are unknown to those whom we wish to convince. We have however the authority of Priestly and Davy, who are admitted to be unexceptionable, and we shall therefore endeavor to confine ourselves as far as practicable to their experiments.

We do not recollect to have advanced any opinion upon the comparative advantages of frequent liming land and of frequent ploughing, harrowing and hoeing, nor are we yet acute enough to discern the force of the argument that would destroy the fertilizing powers of lime, because fertility was increased by ploughing. The operation of both is to increase the capacity of the earth to absorb caloric and other atmospheric substances. These attempts at misrepresentation may gratify the morbid appetite of those who delight in them, but they neither advance the cause of science nor satisfy a candid, liberal, or inquiring mind. We did, however, assume it as a postulate in vegeteble physiology, that the putrefactive process furnished food for plants,—that vegetable and animal matters in a state of solution were essential to their production and healthy action,—that making soils permeable to the atmosphere increased their fertility,—that ammonia,* although destructive to animals, was food of the richest and best description for plants; with some other matters that a very limited acquaint-

* Ammonia, volatile alkali, (*spirits of urine,*) hartshorn, &c. Index to Thompson's Chemistry.

ance with natural productions had induced us to advance. We are now informed that food is furnished without assisting putrefaction,—that insoluble matters answer as well as those that are held in solution,—that loosening the soil does not increase its fertility, and that ammonia is poison.

We would venture to predict that if a man were to go blindfolded into any of the highly cultivated counties of England, or of Pennsylvania, and meet one hundred farmers, asking each of them whether lime improved his land, he would either be ridiculed as a lunatic, or answered in the affirmative, by ninety-nine of the number. This, it is true, is with them a matter of opinion; but it is an opinion resting upon a safer foundation than any other fact recorded in the Genesee Farmer, because it is founded upon the concurrent testimony of the senses of ninety-nine hundredths of the population; the *reason* and COMMON *sense* to which we are referred as rejecting such testimony, we shall not invoke to aid us in these researches.

When the writer of this article went, in the days of his boyhood, to reside in one of the southern counties of Pennsylvania, the land upon which he lived had been purchased at the common price in the neighborhood, £4 Pennsylvania currency, per acre. A short distance to the north-west lay the great limestone valley, that extends, with some abrupt terminations, from New York to Virginia. The serpentine ridge which bounds this valley on the south-east, was considered by the inhabitants as the limits of the grain country; and although the land adjoining it south-eastward was a good sandy loam, it was thought that it would produce nothing but grass, and the land in the valley was then estimated at an average price of £15, or $40, per acre. In a few years, however, the farmers began to haul lime from the valley, and make liberal applications of it on the land south of the ridge. They have continued this process with increasing industry for forty years, with increasing success, and the consequence has been that the land in the valley, which was thought abundantly calcareous without the application of lime, has remained stationary in value, with some fluctuations during the late war, while the land upon which lime has been liberally applied, has advanced from £4 to 80 and $100 per acre, and from the abundance of its crops fully justifies the purchaser.

But we are told by the Cultivator that a plant set in lime puts down its roots without lateral branches until it reaches the earth below. It would be more consistent with the *reason* and COMMON *sense*, to whose light we are called, if we had been told *what plant;* but as the avowed object of the writer who furnishes this quotation, like the fox who had lost his tail, is to establish *doubts* instead of *certainties*, we must take the authority as it is given; and having last season tried the experiment ourselves upon leached ashes instead of lime, and with precisely the same result, we would suggest to those who wish to pursue it further, that the same result would be obtained by planting it on a dung hill. We were not aware that *we* had reasoned so preposterously as to alledge that lime alone in its uncombined state was productive or fertile, nor are we yet apprised that because plants will not grow upon ashes alone, or upon the top of cow dung, or a pile of gypsum, that *therefore* neither ashes, nor dung, nor gypsum, impart fertility to land. "Plants require only a determinate quantity of manure; an excess is detrimental."*

In the schools of the early philosophy, an extreme anxiety was manifested to ascertain the nature of the *pabulum* or food of plants. They ascribed their growth to the elements of fire, earth, air, water, &c. Van Helmont, Boyle, Duhamel, and even Lord Kames, zealously struggled for water; Margraf, Bergenan and Bradley contended for air; Lawrence contended for fire; more modern authors have taken earth and niter; and the matter stood in this *doubting* state, until the discoveries of the French chemists showed that various gaseous, liquid, carbonaceous, and other substances, finely attenuated and wonderfully elaborated in the inimitable chemistry of nature, were not only nourishing but essential to the support of vegetable life; and hapless and forlorn indeed would have been the lot of the human family, had any other economy existed. Van Helmont's experiment of the willow is now used to establish the theory of his adversary. We shall not stop to inquire what result would have been obtained if the willow had been planted without the earth to plant in; but it would seem from this quotation that the writer thinks the willow should have consumed the earth in order to obtain the nourishment that the earth furnished; an opinion that we should not think any man the wiser for advancing; and notwithstanding the weight of the earth appears to have been diminished, it by no means proves that the plant consumed an atom of it. We have abundant and better evidence than this experiment furnishes, that there are plants, especially parasites, which appear to derive their nourishment exclusively from the atmosphere.

"Pleased Epidendra climbs the waving pines,
And high towards Heaven the intrepid beauty shines;
Gives to the tropic breeze her radiant hair,
Drinks the bright shower and feeds upon the air."

Few men have had clearer heads or sounder hearts than the author of "The Economy of Vegetation," and few men have written more elaborately upon these subjects, or conducted their experiments with more scrupulous exactness. There are yet fewer who would be willing to exchange "The Connexion of Agriculture with Chemistry," for the works of him who scorns them, or give up "The Elements of Agriculture and Vegetation," for the *doubts* that constitute the *wisdom* of him who acknowledges they are not founded upon experiment.

We must apologise to our readers for this digression. The theory of manures is so closely connected with the inquiry into the nature of the proper food for plants, that the experiment from the Cultivator, and the hackneyed, threadbare story of Van Helmont's willow, has inadvertently drawn us from our main subject into a discussion that involves an intimate and accurate knowledge of agricultural chemistry, and the economy of vegetation. The wisest, the most acute, and most profound philosophers, have pursued it for years, and at last found themselves mistaken and disappointed. We would fain return to the original controversy, but find ourselves already transcending the limits of an essay. We must for a short period leave the pen for the plough-tail—we must change our present implement for the pruning hook, and after spreading our lime, if time and circumstances are furnished us, will give the observations and experiments of men who have pursued these inquiries with the most scientific zeal, care, and assiduity. We shall thus, perhaps, be able to satisfy him, whose chivalric courage denounces so many philosophical authorities, that his falcon stooping so lightly from her eyrie has been lured by nobler and heavier game than HOLKHAM.

* Elements of Agricultural Chemistry, p. 19.

Irrigation.

BY R. S.

This is a subject which has not unfrequently occupied my mind, and the more I think of it the more I am convinced of its utility. From observation, I perceive that where lands are inundated spring and fall, they are generally the most productive. Small streams or rivulets have the same natural effect. Seeing this effect, I was led to inquire into the cause; and this I conceive to be from two sources—1st. The particles that are washed from higher lands during heavy rains, are generally of the richest quality. 2d. The niter in water. Niter abounds more or less in the four elements, and in water there is said to be a considerable portion. This causes the fertility, and affords a nutricious aliment for plants and vegetables.

The draining of swamps, where it could be introduced, on low lands, might be made profitable. Small streams might be turned from their natural course, and spread on lands during some parts of the year without injury, and I think with substantial utility. Instead of letting the water run along the side of the road, as many do, it should be turned into the field. Knowing from experience that this management is beneficial on my own farm, I cannot but conclude that it may be on others.

It has been justly said that "manure is wealth;" and such measures may yet be resorted to by those who have not other means of procuring this mine of wealth. R. S.

Bots in Horses.

BY UNUS.

MR. EDITOR—The remarks in your paper on "Bots in Horses," induces me to make a few remarks, founded on my own experience and the experience and tradition of my forefathers. As far as our genealogy extends, that is to say, for six generations, my ancestors were cultivators of the soil, and tradition says that they never lost a horse from the bots.

Their unusual "good luck," if it be proper to term it so, seems to rest solely in a *preventive*, and not a *cure* of the disease. One *preventive* is worth two *cures*, and from the known truth of this maxim, I am induced to communicate that which has so fortunately and so completely shielded them and their stock from this troublesome disease. If I had something more complex to recommend, some wonderful, far-fetched, newly discovered drug or mineral, I know I should find a multitude of persons who would be perfectly willing and ready to make trial and testify

to the result. But as it is simple and cheap, and within the means of any and every one, I expect to have this communication read and pass into oblivion. However, those who have been so unfortunate as to lose any horses from "the bots," I hope will make a thorough trial, and communicate the result. As long as a remedy can be found without, it is useless to discuss the points whether it be "leg fly," or "neck fly," that does the mischief, or whether it is neither, and that the whole results from cholic produced by other causes.

I can only state that the fortunate result of no loss of horses, both with regard to myself and my ancestors, is attributed almost *solely* to the constant and daily use of common salt, (muriate of soda.)

Let the horses have free access to it,—if they are stabled, let a small portion of the manger be appropriated to the use of salt, and divided from the eating part. If in a pasture, and no place can be made to contain the salt protected from the weather, let them be salted at least three times a week. It is true, that gentle usage and good and wholesome food, in sufficient and proper quantities at suitable times, does much for the comfort and health of horses; still, the entire freedom of our horses from bots has been, and we think with propriety, almost solely attributed to the free and constant use of *salt*. UNUS.

Correction.

Groveland, April 7th, 1835.

MR. TUCKER—I observe my communication on the culture of hemp in your paper of the 28th ult. Be pleased to correct an error which I suppose to be one of the press. If it originated with me I plead guilty of great carelessness. It occurs in the paragraph beginning—"The same machinery has been in use at Copenhagen, where I understand each breaking machine prepares 500 lbs. of hemp per day." It should have been printed 200 lbs.

I hear that the hemp prepared at this mill, has been sold in your city or neighborhood, the past week, by the ton, at the same price that Russian produces in New York.

Your ob't serv't, A FARMER.

List of Payments

For the Farmer from April 16, to April 23, 1835.

For the Fifth Volume.

A. B. Field.
W. D. Morgan.
Darius Comstock.
Sam'l Satterthwaite.
J. Gibbons.
Bennett C. Fitzhugh.
Amos Parks.
David Ely.
Zera Burr.
Daniel Curtis.
Hiram Soverhill.

Josiah Tryon, to July, 1835.
Alvah Finch, to July, 1835.
Jesse James, last half vol. 5.
Isaac Baker, vol. 4.

Fruit Trees, Grape Vines, &c.

FIVE thousand Grafted Apple Trees, mostly of large size and thrifty growth, consisting of 20 or 30 of the most valuable kinds known. Also, an assortment of Peaches, Plums, Pears, Cherries, Quinces, Currants, Gooseberries, Raspberries, &c., and both native and foreign Grape Vines, from one to six years old.

Also, 5,000 White Italian Mulberry Trees, two years old.

All of which are for sale, either in small or large quantities, at low prices, by

REYNOLDS & BATEHAM.

Rochester, April 11, 1835. ap 14

Fine Potatoes, Oats and Corn.

EARLY June, Early White Kidney, Black Kidney, Foxite, Mercer, Pinkeye, and Irish Cup, POTATOES; 50 bushels of superior ENGLISH OATS, and a quantity of choice, selected SEED CORN, of the best kinds, for sale at the Rochester Seed Store.

REYNOLDS & BATEHAM.

Rochester, April 11, 1835. ap 14

Wanted,

A PERSON well qualified to take charge of one of Andrew's Patent Shingle Mills. A person that can bring satisfactory testimonials of character and capability, will meet with a good situation, constant employment, and cash down. None need apply but those that are well acquainted with the management of circular saws. For further particulars inquire (if by letter, post paid,) of J. G. STOCKLEY, Allanburgh Mills, Thorold Post Office, Upper Canada. ap 11-5t

A Valuable Farm For Sale.

THE valuable FARM owned and occupied by Elias Beach, 4 miles west from the city and situated directly on the Erie Canal, containing 240 acres of good wheat and grass soil, well watered, with good house, barns, out houses, &c. Five thousand dollars will be required in cash, and the balance may remain on bond and mortgage for a term of years. Title indisputable. The price per acre may be learned on inquiring of JAMES H. WATTS, at No. 3 Exchange-street, Rochester, and the owner will at all times be ready to give further particulars on the premises. ap 18-tf

Robbins' Patent Planting MACHINE.

WITH this machine Corn, Beans, Peas, and all seeds of an oval shape can be planted with more system and correctness than can be done in the usual manner of planting with the hand and hoe.

One acre of ground can be planted, placing the seeds any given distance apart, from two or more inches, and rows two and a half feet between, in three hours time.

Machines can be had by applying to C. N. BEMENT, Treasurer of the State Agricultural Society, Albany; BUSHROD BUCK, Lanesborough, Berkshire county, Mass.; and DANIEL I. BUCK, Lowville, Lewis county, agent and proprietor for making and vending said machines, at all of which places it is intended to keep a supply on hand.

Lowville, March 25th, 1835. ap 14-tf

More New and Valuable Seeds.

JUST received at the "Rochester Seed Store," in addition to the former assortment, many choice kinds of seeds, including new White Italian Mulberry, Dyer's Madder, and Dale's New Hybrid Turnep. Also, a few quarts of the new and celebrated Skinless Oats, Bonavista Beans, Early Golden Sioux Corn, &c.; together with some hundred varieties of *Flower Seeds*, which will be put up in small papers at 6*d*. each, or 20 varieties for $1, and 100 varieties for $4. When the selection is left to the proprietors, care will be taken to select such as will form a pleasing assortment as to color, time of flowering, &c.

REYNOLDS & BATEHAM.

A large and comprehensive Catalogue of the Establishment is just published, and will be furnished gratis on application. mar 19

New-England Seed Store.

AT the *Agricutural and Horticnltural Warehouse* connected with the New-England Farmer, the subscriber continues the Seed Establishment, and now offers to dealers, Gardeners, and the public generally, an unrivalled collection of

GARDEN, GRASS, & FLOWER SEEDS,

comprising unusually fine varieties and of undoubted quality and vitality—being raised under the particular direction and expressly for the establishment.

Garden Seeds in boxes assorted for dealers from 10 to 100 dollars each. Also in pounds, halves and quarters, at very moderate prices.

Boxes of Seeds containing a good assortment for private gardens, at $3 each.

300 to 400 choice varieties of FLOWER SEEDS in 6 cent papers—20 papers for $1,00.

Grass Seeds, at the lowest market prices, Wholesale and Retail.

Fruit and Ornamental TREES, *Grape Vines, Plants and Roots*, supplied at one day's notice.

Just published, a Catalogue of 80 pages, which will be sent *gratis* to customers.

jan 31-cow12wis GEO. C. BARRETT.

Monroe Horticultural Garden & NURSERY.

THE subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, &c. &c.

ALSO—A few hundred of the Morus Multicaulis, or Chinese Mulberry, the White Italian Mulberry by the hunbred or thousand, Grape Vines of both native and foreign varieties, mosty of large size, for sale by the single vine, hundred or thousand, at reduced prices. The subscriber has a large collection of Green-House Plants of choice and select varieties, and in good condition.

☞ Orders for *Mr.* Rowe's Nursery received by the Publisher of this paper.

Catalogues will be sent to those who wish them, gratis, or may be had by calling at the office of the Genesee Farmer. ASA ROWE.

Greece, *M*onroe co. N. Y. Sept. 13, 1834.

Mr. Hussey's Grain Cutter.

A MACHINE, invented and built by Mr. Hussey, of Ohio, has been used by the subscriber, in the town of Leicester, county of Livingston, during last harvest, to cut about fifty acres of wheat. The wheat cut with the Machine was of different growth, varying from 10 to 40 bushels the acre. The experiment has shown that it does the work equally well in large or small grain—and it is no obstruction to the machine, where the grain is badly lodged. It cuts and gathers lodged grain clean, except where it lies below the cutters, in which case it is passed over unmolested.

It neither pulls down nor leaves a straw where it passes along—but cuts all clean. The wheat, as it is cut, falls on a table attached to the machine, until sufficient has accumulated for a bundle, when it is slipped off without impeding the progress of the machine. It is capable of cutting about two acres per hour. One piece of wheat, containing five acres by measure, was timed. The machine was actually employed just two hours and seventeen minutes in cutting the wheat which was estimated at 30 bushels the acre. The machinery is simple, and not likely to get out of repair. It does the work well on rolling ground, and without much inconvenience. The common prejudices against new improvements, have uniformly vanished from men in relation to this machine, as soon as they had opportunity to see it in operation. It is believed that this machine, when known to the agricultural community, will be ranked among the most valuable improvements of the age.

The annexed certificate will show the favorable views of a number of gentlemen who have seen the machine in operation. The inventor has taken out Letters Patent, and has appointed the subscriber his agent for the state of New York, to build, vend and use his machine, and also to sell individual, town and county rights. Persons wishing to purchase machines, to be ready at the commencement of next harvest, may be accommodated if they apply soon to Benjamin W. Bills of Mount Morris, or the subscriber at Moscow. Applications for machines must be made by the last of April, or there will not be sufficient time to procure the materials and build the machines in time for next harvest. All communications relative to machines, or rights, addressed to the subscriber, at Moscow, Livingston county, will be promptly attended to.

JEREDIAH HORSFORD.

Moscow, 18th March, 1835.

CERTIFICATE.

We have seen Mr. Hussey's Machine for cutting grain by horse power, while it was in operation in the town of Leicester, in the county of Livingston, during last harvest. It cuts a swath about four feet wide, and moves at the rate of about four miles per hour, or as fast as horses can walk. It is drawn by two horses—is attended by one man, and requires a man or boy to drive the horses—gathers the grain cleaner than any other mode of harvesting we have ever seen, and leaves it in gavels ready for binding. The machinery is rather simple, and we think it worthy the attention of a wheat growing community.

JOHN H. JONES, JESSE WADDAMS,
H. JONES, JR. HEN. A. WILMERDING,
DAVID A. MILLER, WM. LYMAN,
IRA HOLMES, EPHRAIM CONE,
W. C. DWIGHT, WALTER CHENEY,
E. ROGERS.

Leicester, Liv. co., 18th March, 1835. ap 11-4t

On the Cultivation of Celery.

It appears to me that a few practical hints on the cultivation of this useful and delicious vegetable might prove interesting and serviceable to many of your readers. I beg to premise that it is a mere detail of the methods I have practiced this summer, by which I have raised celery in heads of two and two and a half feet high, of which twelve to eighteen inches are blanched and tender; they are single heads, without offsets, and many four and five inches in circumference. This method has one convenience, which is, that the young plants are raised in the open ground, without glass or hot-bed.

In the beginning of May, later or earlier, as the season may indicate, dig and pulverize well about six square feet of well manured and open ground; water it very lightly, but thoroughly, with a nose on the watering pot, early in the day, then sow your seed and water again thoroughly in the same way. Cover up this bed lightly with a double layer of Russia mat, which should be dry, and kept down at the corners with stones. The sun striking on the mats penetrates them, and causes a general moist heat to rise from the earth; this is the most favorable state of an atmosphere for the vegetation of seeds, and the celery, particularly if not fresh, is very difficult on this point; the covers should be maintained in as dry a state as possible, (after heavy rains, the upper mat might be changed,) because if wet, considerable evaporation takes place in the night, which is always productice of cold, and would be apt to rot the tender shoots just piercing the seed; on the other hand, if dry, it prevents the escape of heat when the sun's rays have left the earth, and retains underneath sufficient warmth to prevent any check in the vegetation; in a fortnight or three weeks, according to the season, little yellow and white sprouts will appear; when these are one quarter of an inch high, the upper cover should be removed, that there may not be too much weight on the younger plants; and if the weather continues mild, in a few days afterwards remove the other. If well watered in the beginning, it will scarcely need any further moisture during the first process; but those who practice this method, will hardly be restrained from peeping under the mats once or twice during the fortnight, when, if sultry weather has prevailed, their own judgment will guide them on this head.

The second part of the method is to have another piece of ground, double the size of the former, prepared in the same way, and when the young plants are in their fourth leaf, or about two inches high, take them up and transplant them carefully into this fresh bed, about one inch asunder, first trimming the roots a little

If well watered and weeded, by the first of July they will have attained sufficient growth to be removed into trenches, which should be prepared in the open, well exposed spot, by digging them two spades deep, and two and a half feet wide, leaving three or four feet distance between the trenches: on this space is to be piled up, like a bank, the earth taken from the trenches. Put about four inches of good manure at the bottom of each trench, and dig it in; take up the plants, and previous to putting them into the earth, trim the roots very carefully, being sure to cut off the end of the tap root, and eradicate all the shoots and radicles, where the heart joins on the roots, as these shoot up and produce that mass of small heads seen in our markets, instead of one large, solid, handsome plant; place them about three inches distance, and water well for the first week. As the plant grows, gently fill the trench with the earth on each side, taking care not to throw in large lumps, which twist and contort the celery, and spoil its beauty; and continue earthing up until there is a bank above ground as high as the trench was deep.

I prefer digging the trenches east and west, because the bank on each side shades the young plants, in July and August, from the rays of the hot sun, and in September and October, when it is desirable the celery should advance as much as possible, the southern bank, earthed up, imbibes the heat and retains it.

I believe, by covering up the trenches well with pine and savin boughs, it may be dug fresh all the winter; but I have placed mine in an upright position in the cellar, half covered with earth, and kept moist. They appear to suffer but little.

I have been rather explicit, and give my reasons for each operation at the risk of being thought too prolific; but whenever I set earnestly to cultivate a plant, I have generally found directions in books rather too vague, and here and there a link wanting in the chain, which gave me trouble to annex; those, therefore, who are well acquainted with this process, must excuse this in favor of those who are not so efficient.—*Horticultural Register.*

Lice on Cattle, and a New way

TO KILL THEM.

For some wise reason or other, it has pleased Providence to create a set of animals in the shape of what are commonly called lice, to live upon other animals. These are oftentimes troublesome to farmers. An animal infested with them cannot thrive, keep him ever so well, as another animal kept in the same way that is not infested with them. The natural history, that is, the habits and characteristics of these animals, is not well understood—how long they are in the egg, for they are oviparous--how long it is before they come to maturity and can propagate—how many eggs a female can lay at a time—how long they live if not molested—what they like best and what they hate worst—are questions which every farmer ought to know how to answer, and which we doubt if one in the world *can* answer. Farmers have different modes of destroying them. *Unguentum*, or *anguintum* as we Yankees too often say, will kill them, and oftentimes the cattle too. It is a preparation of mercury and a poison. Bacon fat will kill them, and so will almost any grease that gets on to them. Tobacco juice will kill the old ones and hatch the eggs if put on warm, to our certain knowledge, and oftentimes make the animal tobacco sick—no very pleasant feeling. All these preparations are somewhat troublesome to apply, especially the tobacco juice, because the beast must be *sopped* in the gravy of the Indian weed.

We have been informed that Capt. John Haines of Readfield, has discovered what to us, is a new remedy, and we presume is so to others. It is simply the application of *tar* in a few spots about the body of the animal troubled with them, and it proves sure destruction to them. If this is a fact the discovery is a very important one.—*Maine Farmer.*

Waste of Manure.

"But as an example may perhaps bring this before you in a stronger point of view than in any other way I can put it, let me suppose that some of you should purchase a little tea at a grocer's; as long as you keep it dry and shut up from the weather, it will preserve its original strength, even for years; but when you put it in a teapot, and pour water on it three or four times, the strength is all gone, and your tea becomes, I may say, dead, useless matter. It is just so with your manure. I see it often placed in such situations that the rain water from your house and offices, and the seepage from the higher grounds, all run through it; thus every shower floods it day after day, carrying off always some part of the strength, until at length it is left as dead and as useless as the leaves thrown out of the teapot.

"Surely no man in his senses will persist any longer in such gross mismanagement. If you were to observe a man quietly stand by and see his potatoes destroyed, which were to be the chief support of himself and his family, you would say he was either mad, or a downright ideot; and if this would be your opinion of him, what can you say of yourselves when you stand by and daily look on at the destruction of that manure by which your potatoes are to be produced?"—*Blacker's Essay.*

New Potatoe.

(*Convolvulus Batatas.*)

[Copy of a communication from L. Paubell, Esq. of New-Jersey, to William Prince & Sons, Proprietors of the Linnæn Botanic Garden, at Flushing. Communicated for the New-York Farmer, and American Gardener's Magazine.]

Gentlemen—I have this day sent to Messrs. Swords, Sanford & Co. with a request to forward it as soon as possible, a small box, containing four roots, received from Martinico, by Mr L. du Bureau, a gentleman of this place, as a species of the Convolvulus Batatas, a specific name of which I am ignorant. They were recommended to him as superior to the common sweet potatoe; when boiled, they are harder than the Carolina kind; *le gout tient un peu celui de l'igname.* The root, it is said, will keep sound a whole year in the West Indies; those sent have been dug these four months. They do not require a longer time to come to maturity than the kind cultivated with success in the lower part of this state. The foliage is a very good fodder, and is used as such in Martinico and Gaudaloupe.

I think the introduction of this variety of potatoe in the United States, where it is, I believe, entirely unknown, may be of very great advantage; and should the heat in this latitude not be great enough to bring it to perfection, there is no doubt but that its culture in the Southern States will be attended with the success it has had in the West Indies.

The possibility of introducing, through your means, a new vegetable into this country, is the only apology I can offer for the liberty I take of requesting you to give a trial to its culture, in hopes that you will be successful in the attempt.

American Silk.

The Philadelphia Herald speaks of Mr. Upton, of this city, as having been for eighteen years engaged in silk manufacture. There is a gentleman in this vicinity, (Mr. Cobb, of Dedham,) who, for a shorter period has perhaps been working as effectually as any other person in the way of experiment. He began the cultivation of the mulberry tree in 1826; and *since* that time, notwithstanding the nature of the soil, which is not the most favorable, has extended his operations so much as to be now in the habit of bringing to the Boston market American silk, manufactured, to the amount of about a hundred dollars a week, the year round. Recently he has introduced the great improvement of raising his trees from *slips*, by which he gains two years in the growth. Those planted by him the last spring, we understand, have grown over four feet already. The mulberry, in this particular, excels all other trees.—*Bost. Mer. Jour.*

Disease of the Heart in Sheep.

A worthy old Ewe, belonging to the flock of E. Wood, Esq. in this town, fell sick a month or two ago, and grew lean and poor. Her owner, finding that her death was inevitable, killed her and subjected her, as every flock owner should in similar cases, to dissection and examination. The following items of the *post obit* examination have been obligingly furnished by him. She was quite old and with lamb—finding that she was sick and failing, he separated her from the rest of the flock and fed her alone, till she grew leaner and more feeble, although her appetite continued, and finally she was killed. Every part of the body and intestines had a healthy appearance. But on the examination of the heart it was found to be in a dropsical state. The heart case contained more than a gill of watery fluid, and one lobe was found to be weak, flabby, diminished in size, and evidently wasting away. There was no paleness of the eye—the skin had begun to grow pale a little—appetite continued moderately good, and the stomach was full when she was killed. The owner considered the disease a species of the rot, what he calls "misplaced rot," and states that it is the third case that he has had in his flock in the course of a few years.—*Maine Farmer.*